

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A system for remotely monitoring electrical power supplies, comprising:

a plurality of individual input modules each connected to a respective power source and having means to receive an analog voltage input and to convert said analog signal to a digital form;

central controller means connected to collect data from each input module and, at scheduled intervals, send that data to web server means containing primary system software capable of performing data comparisons, charting trends, predicting failures, planning and scheduling service visits, and archiving data for future reference, said software also providing near real time reports, regular monthly reports, and alarm notifications which can be sent via E-mail, telephone land lines, cell phone, PDA, or pager.

2. (Currently Amended) The system for remotely monitoring electrical power supplies according to claim 1, wherein each said input module comprises:

DC battery lead attachment means;

AC input voltage power transformer means;

temperature thermistor means attached to each battery being monitored; and

current transformer means ~~including AC and Hall effect DC~~.

3. (Currently Amended) The system for remotely monitoring electrical power supplies

according to claim 1, further comprising:

wiring harness means in each said input module means, each said battery being monitored is attached to one end of said wiring harness means the other end of which is attached to connector means of said input module, the number of wires in said wiring harness means being one more wire than the number of batteries being monitored.

4. (Currently Amended) The system for remotely monitoring power supplies according to claim 3, further comprising:

additional sensor means attached to said input modules through said harnesses.

5. (Currently Amended) The system for remotely monitoring electrical power supplies according to claim 1, wherein each said:

input module is used for DC battery voltage and DC charger/bus voltage, DC amperage at the DC bus, AC input voltage sensing, and both individual battery temperature and ambient temperature sensing, the different voltage ranges and type of voltage (~~AC vs. DC~~) are programmed on system requirements.

6. (Currently Amended) The system for remotely monitoring electrical power supplies according to claim 1, wherein said central controller comprises,

microprocessor means to collect data from said input modules, store and summarize said data, said data including: system data, power measurements, date/time stamps, and module information embedded in the data; and

a two-way communication link.

7. (Currently Amended) The system for remotely monitoring electrical power supplies according to claim 1, wherein said software is embedded in each said input module means and said central controller means;

one of said input module means attached to each sensor and set for the voltage type and range in which it will be collecting data.

8. (Currently Amended) The system for remotely monitoring electrical power supplies according to claim 7, wherein said data includes site-specific information, individual input module serial numbers, uninterruptible power supply or battery system model and serial number, start date, technician/installer information, ~~any other pertinent information~~, and a benchmark reading of each the battery's float level and possible discharge rate.

9. (Currently Amended) The system for remotely monitoring electrical power supplies according to claim 1, wherein said

software resides at the a web site thereby providing: security from theft; reduced chance of hackers entering the network; one upgrade affects all sites; reduced customer support; reduced computer system requirements at the site; and a lower cost of installation and hardware for customers who have local PC and Internet connection.

10. (Currently Amended) A method for remotely continuously remotely monitoring the condition of electrical power supplies through hardware and software that resides locally at a customer's site, through an Internet connection, a web site for customer access, data analysis, and an emergency communication link to the customer and field service provider, comprising :

a plurality of input module means each of which receives an analog voltage input from a respective power source being monitored, convert this signal to a digital format and send the digital signal to central control means which collects the data from each input module means then, at scheduled intervals, sends the collected data to a web server which contains primary software for the system;

said software performing data comparisons, charting trends, predicting failures, planning and scheduling service visits, archiving the data for future references, and providing near real time reports when a customer logs into the system to view up to date information.

11. (Currently Amended) An electrical battery remote monitoring method providing DC measurements in "near" real time providing up to the minute, continual measurements during the battery's three states, float, discharge, and recharge, said method comprising the steps of:

constantly measuring the respective batteries to provide measurement data to build a curve with enough resolution to "chart" the battery.

monitoring the system's battery charger;

monitoring the temperature of individual batteries;

monitoring ambient temperature;

monitoring equipment load; and

monitoring incoming electrical power from a commercial source.

12. (Currently Amended) A system for remotely monitoring electrical power, which includes both electrical power from commercial electrical power utilities and battery operated

electrical power backups, comprising

a plurality of individual input module means each connected to a respective electrical power source and each receiving an analog voltage input indicative of the status of said electrical power supply and converting said analog signal to a digital signal;

central controller means connected to collect said digital data from each input module means;

web server means containing primary system software capable of performing data comparisons, chart trends, predict failures, plan and schedule service visits, and archive data for future reference, and at scheduled intervals said web server means receiving said digital data from said central controller

13. (Currently Amended) The system for remotely monitoring electrical power according to claim 12, wherein each said input module means comprises:

DC battery lead attachment means;

AC input voltage power transformer means;

temperature thermistor means attached to each said DC battery; and

current transformer means ~~including AC and Hall effect DC~~.

14. (Currently Amended) The system for remotely monitoring electrical power according to claim 12, further comprising:

wiring harness means in each said input module means, each said wiring harness having one end attached to each battery and attached to an input module bus on the other end, the

number of wires in a wiring harness consisting of one more wire than the number of batteries connected by said wiring harness.

15. (Currently Amended) The system for remotely monitoring electrical power according to claim 14, further comprising:

additional sensor means attached to said input modules through said wiring harness mean.

16. (Currently Amended) The system for remotely monitoring electrical power supplies according to claim 12, wherein each said:

input module means measures DC battery voltage, DC charger/bus voltage, DC amperage at the DC bus, and both individual battery temperature and ambient temperatures, the different voltage ranges being programmed in said central controller software

17. (Currently Amended) The system for remotely monitoring electrical power supplies according to claim 12, wherein each said:

input module means senses AC input voltage and ambient temperature, the voltage ranges programmed in said central controller software.

18. (Currently Amended) The system for remotely monitoring electrical power supplies according to claim 12, wherein central controller comprises,

microprocessor means to collect digital data from said input modules, store and summarize said digital data, which includes: system data, power and battery measurements, date/time stamps, and input module information; and

two-way communication means with customers.

19. (Currently Amended) The system for remotely monitoring electrical power supplies according to claim 12, wherein said software is embedded in the input module and central controller;

an input module attached to each sensor and set for the voltage type and range in which it will be collecting data;

20. (Currently Amended) The system for remotely monitoring electrical power supplies according to claim 19, wherein said data includes site-specific information, individual input module serial numbers, site information, uninterruptable power supply or battery system model and serial number, start date, technician/installer information, ~~any other pertinent information~~, a benchmark reading of the battery's float level and possible discharge rate.

21. (Currently Amended) The system for remotely monitoring electrical power supplies according to claim 12, wherein said software resides at the web site thereby providing: security from theft; reduced chance of hackers entering the network; one upgrade affects all sites; reduced customer support; reduced computer system requirements at the site; and a lower cost of installation and hardware for customers who have local PC and Internet connection.

22. (Currently Amended) The system for remotely monitoring electrical power supplies according to claim 12, wherein said software of said web server also provides near real time reports, regular monthly reports, and alarm notifications which can be sent via E-mail, telephone land lines, cell phone, PDA, or pager.

23. (New) The system for remotely monitoring electrical power supplies according to

Appln. No. 10/674,200
Amdt. Dated 03/01/05
Reply to Office Action of 12/22/04

claim 1, wherein said power supply is AC.

24. (New) The system for remotely monitoring electrical power supplies according to

claim 1, wherein said power supply is DC.